

GPP#1**Use an Appropriate Veterinarian/Client/Patient Relationship (VCPR) as the Basis for Medication Decision-Making**

Responsible medication decision-making is established through a current Veterinarian/Client/Patient Relationship (VCPR). This importance is based on the health of the project animal(s) as well as preventing drug residue violations, thus providing a safe and wholesome food product for consumers.

Veterinarian/Client/Patient Relationship (VCPR): This relationship requires that the veterinarian has seen and has knowledge of the animal and has discussed a health plan or any treatments with the owner. This relationship is required in order for a producer to use prescription drugs or a drug that is not specifically labeled for the animal (extra-label use).

How can leaders help youth exhibitors begin to establish a VCPR?

- ♣ *Have a veterinarian speak at a club or project meeting about health plans*
- ♣ *Bring a veterinarian along on a farm tour for the club or livestock project members*
- ♣ *To verify you have a VCPR you should keep vet bills, have a letter from the vet, and phone records.*

Label Use: Using the drug EXACTLY as stated on the label.

Extra-Label: Extra-label drug use means using an animal drug in a manner not in accordance with the approved drug labeling.

- ♣ When labeled drugs are not available to maintain adequate animal care, a veterinarian has the ability to prescribe extra-label drug use.
- ♣ Only a veterinarian with a valid Veterinarian/Client/Patient Relationship (VCPR) for the operation can direct extra-label drug use.

Prescription (Rx): Drugs that require a veterinarian's written permission for use

Veterinary Feed Directive (VFD): The VFD is a category specifically for new antimicrobial drugs used in the feed to treat disease.

DRUG RESIDUE TEST: A drug residue test can be **conducted by a veterinarian** and sent to the Ohio Department of Agriculture for analysis

*All animals that have been treated should be **identified and documentation kept** reducing the chance of drug residue entering the food chain.

Residue: is the portion of a medication that remains in the animal's tissue.

*If a drug residue is found in meat or milk, the product will be **condemned** (thrown away, unfit for human consumption)

***Identification and documentation** of all treated animals will reduce the chance for a drug residue to enter the food chain.

REGULATORY AGENCIES RESPONSIBLE FOR DRUG RESIDUE LIMITS AND TESTING:

- ♣ **Food and Drug Administration (FDA):** Responsible for regulating medicated animal feed and most animal health products.
- ♣ **United States Department of Agriculture (USDA):** Division of the federal government that enforces regulations related to agriculture.



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- ♣ **Food Safety and Inspection Service (FSIS):** Division of USDA and inspects all food products (Meat, Dairy and Poultry) from animals in federally inspected packing plants and food processing facilities and examines plant sanitation.
- ♣ **Ohio Department of Agriculture (ODA):** Division of the state government that enforces Ohio regulations related to agriculture

GPP #2

Establish and Implement an Efficient and Effective Health Management Plan

Animal health is a key to food safety. Healthier animals grow more quickly and efficiently, and generally require less medical care. Developing and implementing an efficient and effective health management plan can have beneficial impacts on animals' health through the use of measures such as vaccination plans, biosecurity protocols, and emergency preparedness.

Herd health plan: A plan that is designed to address potential and current health challenges and to help prevent diseases from entering your herd or flock

Internal biosecurity: Keeping diseases of the herd or flock from spreading to other sections

- Work with your veterinarian to survey your herd or flock
- When possible, operate all-in/all-out when disinfecting between groups of animals.
- Establish a traffic pattern for both animals and people

External biosecurity: Keeping diseases out of a herd, flock, or from an animal.

- Consider supplying disposable plastic boots to all visitors.
- Require everyone to wash hands before entry into animal areas.
- Change clothes and boots after visiting other farms, livestock markets, or exhibitions before entering your facility.

Rodent and pest control: Include controlling rodents and pests as a part of animal, herd, and flock internal and external biosecurity plans.

GPP#3

Use Antibiotics Responsibly

The responsible use of antibiotics assures that food animal producers deliver a safe, wholesome product to the retail case. Understanding what is acceptable and what is not will assure that your herd/flock health program will maintain efficiency of production without over use of antibiotics.

Food animal producers use antibiotics for the following three purposes:

- ♣ To treat animals for clinical illness administered through:
 - Injections (IM, SubQ or IV)
 - Orally in feed or in water
- ♣ Antibiotics are used as sub-therapeutic doses, administered in the feed or water, as a preventative in animals that:
 - Have been or are currently exposed to infections (bacterial), or;
 - If there is a clinical outbreak pattern of disease in operations at a given time of year or a given production stage
- ♣ Some antibiotics can be used as a feed ration supplement to improve feed efficiency, accelerating growth and muscle development.

A result of **overcrowding animals** is unsanitary conditions could **increase** the need for antibiotic use that we would like to avoid.



GPP #4**Properly Store and Administer Animal Health Products**

Freedom from drug residue violations is a component of food safety. Everyone responsible for the care of animals must be instructed on methods used to follow label directions, identify treated animals, and record treated animals. Accurate recordkeeping will allow anyone to quickly determine the correct withdrawal time has elapsed before animals leave a location.

Methods of Administering Medication

- ♣ **Oral:** Medications given through the mouth. Medication can also be administered through the water and/or feed, which is a more common method for poultry.
- ♣ **Topical:** Medications administered by applying them to the skin or on the mucous membranes of the eyes, ears, or nasal passages
- ♣ **Injectable medication:** A medication that is given using an infusion method, typically via a syringe and hollow needle
 - **Intramuscular (IM):** Injections given in the muscle
 - **Subcutaneous (SQ):** Injections given under the skin
 - **Intraperitoneal (IP):** Injections given in the abdominal cavity
 - **Intravenous (IV):** Injections given in the vein
 - **Intranasal (IN):** Injections given in the nasal passages
 - **Intramammary Infusion:** In the udder through the teat canal

Needle Size and Selection

Species	Subcutaneous		Intramuscular	
	Gauge	Length	Gauge	Length
Baby Pigs			18 or 20	5/8" or 1/2"
Nursery Pigs	16 or 18	1/2 in	16 or 18	3/4 in or 5/8 in
Finisher Pigs	16	1 in	16	1 in
Sows or Boars	14 or 16	1/2 in to 3/4 in	14 or 16	1 in or 1-1/2 in
Calves (<300lbs)	18-20	1/2 in to 3/4 in	18	1 in or 1-1/2 in
Calves (300-700lbs)	16-18	1/2 in to 3/4 in	16-18	1 in or 1-1/2 in
Calves & Dairy (>700lbs)	16-18	1/2 in to 3/4 in	16	1 in or 1-1/2 in
Sheep & Goats	18-20	1/2 in to 3/4 in	18-20	1 in
Small Animals (Any Age)	20-22	1/2 in	20-22	3/4 in or 5/8 in



Drug Storage

- ❖ Follow proper drug storage instructions indicated on the label.
 - Always check the drug label for proper storage instructions.
- ❖ Temperature extremes or exposure to sunlight may decrease the strength of a stored drug.
 - Most vaccines and some antibiotics should be refrigerated at 40° F – 45° F.

Dosage: Measured portion of medication to be administered at a given time

Withdrawal times: Amount of time that must pass after the medication is administered before harvest. The time should be found on a Medication or Medicated Feed label.

Expiration date: Date the medication should be discarded.

Sharps: Used needles, knife blades and syringes are disposed in container called a Sharps.

For Veterinary Use Only: a drug can only be used for animals

Administering Medications

When drugs are administered properly and recorded, exhibitors will avoid drug residues. Record any medication give to exhibition animals on your **Drug Use Notification Form (DUNF)**.

GPP #5**Follow Proper Feed Processing Protocols**

What an animal eats will affect growth, health, economic return and food safety. Accidental contamination or mistakes made while mixing feeds can cause health problems in animals. These contaminants could also be found in the meat, milk, or egg products.

To produce a high quality product and prevent contamination, proper feed processing and feeding practices should be followed.

Reading Feed Tags are very important to both the animals and the care takers. Note the parts of the feed tag:

- | | |
|---|---|
| ❖ Brand and/or Product Name | ❖ Ingredients – |
| ❖ Intended Species and Production Phase
(Never Feed to a Species if it's not listed) | ❖ Feeding Directions or Mixing Directions |
| ❖ Medicated Statement | ❖ Warning or Caution Statement |
| ❖ Guaranteed Analysis | ❖ Manufacturer's Name and Address |
| | ❖ Net Weight |

Read the feed label before feeding your animals! Know the age and type of animal being fed and its nutrient needs, which may change throughout its life cycle. Look closely to see if there is an active drug ingredient and what the withdrawal time is.

Feed Storage

- ❖ Design workspaces and storage areas to avoid accidental contamination of feed.
- ❖ If mixing medicated and non-medicated feeds at the same location, ensure that non-medicated feed work areas, equipment and storage areas are physically separated from medicated feed work areas.



GPP#6**Establish Effective Animal Identification, Medication Records and Withdrawal Times**

Record keeping is a management tool that has become increasingly important. It is the first and most reliable method of disease surveillance for the food animal industry. Consumers gain confidence in their food supply when food animal producers document management practices that provide a safe and wholesome food supply. **This process begins with identifying all animals.** An identification system allows an animal to be tracked from **Birth through Harvest.** Youth exhibitors who show sheep and goats are required by law to identify their animals. Pending laws will require all food animals and poultry flocks to have identification.

Animal Identification: The process by which animals are officially identified individually or as part of a group.

Animal Tracing: Animal Disease traceability is knowing where diseased and at-risk animals are located.

Medical and Treatment Records: Are documents that record the health history of an individual animal. *What should be included in a treatment record?*

- ❖ Individual animal ID or ID of groups/pens of animals if all treated
- ❖ Date treated
- ❖ Name of product administered
- ❖ Amount of drug administered (dosage)
- ❖ Route and location of administration
- ❖ Withdrawal period
- ❖ Earliest date the animal(s) will have cleared the withdrawal period
- ❖ Identity of the person who administered the product

IDENTIFICATION AND MEDICATION RECORDS***How long should an exhibitor keep records on his/her animals?***

Youth exhibitors are required by Ohio Law to keep records for 1 year. Sheep/Goat exhibitors are required by federal law to keep records for 5 years.

Recommendations for the different species are:

Species	Year(s)
Swine, Poultry, Rabbits	1
Beef, Dairy Beef	2
Sheep, Goats	5
Dairy Cows and Heifers	5

What is an official USDA Scrapie identification?

The types of identifications permitted for the Scrapie program are:

- USDA provided ear tags
- USDA approved ear tags
- USDA assigned tattoos
- Registration tattoos and microchips when accompanied by a registration certificate
- Scrapie Certification Program approved ID



TABLE 1: CHART OF IDENTIFICATION METHODS

Method	Species	Location	Advantages	Disadvantages
Branding	Cattle	Hip, Rib, Shoulder	Permanent; individual Animal ID; freeze brands do NOT affect hide quality	Hot brands damage hide; often is a farm ID instead of individual
DNA	All	Hair, Feathers, Blood	Permanent; unique to each individual	Expensive; not a visible ID tool
Ear Notch	Sheep, Swine	Ear	Permanent; individual animal ID; easy to read with practice	Not visible from a distance; can be mistaken for rips or tears in the ear
Ear Tags	Cattle, Goats, Sheep, Swine	Ear	Easily read from a distance; used for daily management; inexpensive	Easily ripped from the ear leaving no ID in/on the animal
Electronic (EID) /Radio Frequency ID (RFID)	Cattle, Goats, Sheep, Swine	Ear, Rumen, Implant	Individual ID; not easily tamperable; computer management friendly	Expensive; requires electronic readers and equipment; not easily read from a distance
Neck Chains /Leg Bands	Dairy Cattle, Poultry	Rear Pastern- Dairy, Leg - Poultry	Easily visible; used for daily management; inexpensive; easy to apply	May be lost or ripped away from animal leaving no ID
Nose Print	Cattle, Sheep	NA	Unique individual ID; similar to fingerprint; livestock show uses	Not readily available for daily management
Paint Brand	Sheep, Swine	Anywhere	Easily visible from a distance; easily applied; short term ID	Not permanent; easily washed or wiped off
Photo/ Drawing	Dairy Cattle, Goats	NA	Used for registration on colored breeds; displays exact markings	Not useful with animals without distinct markings
Retinal Scanning	All	Eye	Permanent; unique to each animal	Expensive; not readily available; not a visible form of ID
Tattoo	All but Poultry	Ear	Permanent; not easily altered	Not visible from a distance; readily depends on application
Wing Bands	Poultry	Wing	Relatively permanent	Not easily visible from a distance



GPP #7**Practice Good Environmental Stewardship**

Good environmental management practices help protect our natural resources. **The goal of environmental stewardship is to protect our natural resources (water, air and land) in all of our production practices.** Good stewardship means good business.

Stewardship: The act of caring for or improving over time
Good Environmental Livestock Production Practices (GELPPs)

Manure Management

***A good sanitation practice is to clean your animal's stall daily to remove waste.**

*If people or animals are unconscious when manure is being agitated or removed, you must **not enter** the room. You can lose consciousness quickly! If people or animals are down, **contact emergency medical services** as outlined in the EAP, and **start emergency ventilation.**

What does it mean to be a Good Neighbor?

A good neighbor:

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Follows laws and regulations in their county. 2. Minimizes odor, dust, and noise. 3. Protects the environment. 4. Takes proper care of livestock. | <ol style="list-style-type: none"> 5. Explains what they do in their operation and why, 6. Helps consumers appreciate food production. 7. Assists neighbors in need and asks for help when they are in need. |
|---|---|

GPP #8**Maintain Proper Workplace Safety**

Safety is everyone's responsibility including exhibitors, family members, friends, and so on.

Controlling Hazards

Controlling exposures to hazards is the fundamental method of protecting caretakers. The basic strategies for controlling workplace hazards, in order of preference per OSHA guidelines, include:

1. Eliminating the hazard from the method, material, facility or machine.
2. Lessening the hazard by limiting exposure or controlling it at its source.
3. Training personnel to be aware of the hazard and to follow safe work procedures to avoid it.
4. Prescribing personal protective equipment (PPE) for protecting caretakers against the hazard.

Emergency Action Plan (EAP): Contains who to notify, what to say, and what actions need to be taken in case of an emergency.

GPP #9**Provide Proper Animal Handling and Care**

Providing proper quality care of your animals can help **reduce production costs, increase performance, improve product quality, and improve safety to humans and animals.**

Animals have three basic needs – **water, food, and shelter.**

Animal Movements and Behaviors

Animal movement and handling: When handling or moving animals **act calmly and avoid sudden movement,** loud noises and other actions that may frighten or excite an animal. When



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handling an animal, you must consider your actions to ensure they would appear appropriate to the general public.

Flight Zone: is an imaginary circle around an animal that it considers its individual space. When a handler enters the flight zone, the animal(s) may become **tense** and want to **react**. An animal's two main instincts are **fight or flight**.

Point of balance: is located behind the **animal's shoulders**. The animals respond to a handler's approach relative to the point of balance. If a handler enters an animal's flight zone, the animal will move:

- Forward if the handler approaches from behind the point of balance.
- Backward if the handler approaches from in front of the point of balance.

Because the eyes of pigs, sheep, cattle, and goats are on the side of their head, their vision is approximately **310 degrees**, leaving a blind spot directly behind them.

Handling Equipment

Proper animal handling is also important during transportation, as transportation can be stressful for animals.

- Move animals when it is not too hot or too cold. Try early in the morning.
- Transporting when it is hot, ensure its shaded has good air movement throughout the trailer.
- Transporting when it is cold outside, have bedding on the trailer, and holes are plugged.

Animal Feeding and Daily Observation

Water is the most important nutrient requirement and is necessary for normal body function, growth and reproduction. It is important to:

1. Provide clean, fresh, and cool water daily.
2. Ensure the supply of water is sufficient for the number of animals.
3. Clean watering devices on a regular basis.
4. Know the water requirements for the animal(s).
5. Know that water requirements change depending on weather, maturity of the animal, feed consumption, and stage of production (lactation, egg laying).

Average daily gain: The average amount of weight an animal gains each day over a period of time.

Feed Efficiency – Calculated as pounds of weight gained per pound of feed consumed.

Body condition score (BCS): is a tool producers can use to visually evaluate the effectiveness of the nutritional and animal health management programs of their animals. The BCS can change depending upon the breed within each species, how much feed the animal has consumed prior to scoring (fill), or the stage of the production cycle. It is one method of determining if an animal is overweight, underweight or an acceptable weight.

Daily observation record: **Daily observation** and animal care are key factors to addressing animal health and well-being and facility or management issues. Daily observation helps ensure that sick animals do not go unnoticed and that animal caretakers are doing their job. The best way to fully assess the animals' environment and health is to walk the pens daily.

***Clean and dry bedding** is an excellent insulating material and provides the animal with comfort and protection from the cold.

Ventilation: Both **air temperature** control and **air quality** can impact the well-being of your animals. These two factors can be controlled through proper ventilation management.



Treatment pen: Once an animal has been identified as ill or injured, it may need to be moved to a treatment area.

Euthanasia: is defined as humane death occurring with minimal pain or distress. Animals that are not responding to care or unlikely to recover must be euthanized humanely. Timely euthanasia, as well as using the appropriate methods and equipment, is critical to the well-being of these animals. An animal should be considered **non-ambulatory if it refuses to stand up or if it can stand** without support but refuses to bear weight on two of its legs. Animals that have no prospect for recovery **after two days** of intensive care should be humanely euthanized.

Temperature control:

Thermoregulation is the ability to control body temperature, even when surrounding temperature is different.

Temperature is impacted by:

- Air flow (ventilation)
- Density of animals
- Humidity
- Season
- Supplemental heat or cooling sources

Comfort Zone is the range of temperature where the animal is comfortable.

An animal's body loses heat in four ways:

1. **Evaporative** – moisture lost from the animal's skin or lung surface
2. **Conductive** – transfer of heat from one object to another.
3. **Radiant** – radiation of heat from one surface to another surface not in contact
4. **Convective** – transferred along a temperature gradient between the surface temperatures of the animal and the air.

Willful acts of abuse: acts outside accepted practices that purposely cause pain and suffering including, but not limited to:

- Purposely applying prods to sensitive parts of the animal such as eyes, ears, nose, genitals or anus.
- Hitting or beating an animal
- Failure to provide minimal food, water, shelter, and care that results in significant harm or death to animals.

Shelter (The Animal's Environment)

Shelter is needed to provide animals an escape from harsh environments. Animals at different ages and stages of production **require different** amounts of space.

Stress

Knowing what an **animal's "normal" behavior** is through daily observation will help you know when they become stressed. Stressed animals will have **reduced performance**, are more **susceptible to diseases**, and have a **higher mortality rate**.

Reduce stress in show animals by:

- Handling and training an animal regularly to reduce excitement of the show
- Keeping animals on a regular feeding and exercise schedule
- Getting animals accustomed to strange or flavored water

Stress indicators may include:

- Lack of appetite
- Abnormal posture
- Slower than normal growth
- Rapid breathing
- Restlessness
- Lameness or alteration of gait



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- Trying not to mix animals at shows to avoid fighting
- Avoiding changing feed at the show

- Dull or depressed attitude
- Unusual vocalizations
- Self-isolation from pen mates

Types of Stress

- **Thermal** – factors that lead to thermal stress include temperature (heat or cold), humidity, wind, and solar radiation
 - ❖ Results of air temperature, speed of air movement, humidity, insulating effects of facilities
 - ❖ Extreme heat/humidity and cold
- **Physical** – caused by the physical component of an animal's environment. This includes objects and other tangible items that could cause the animal injury.
 - ❖ Lack of food and water

- ❖ Lack of shelter
- ❖ Facilities that can cause injury to the animal
- **Disease** – results from the onset and spread of disease
- **Behavioral** – factors that affect normal behavior of the animal
 - ❖ Being moved to a new area
 - ❖ Being placed in a new group of animals
 - ❖ Exposed to new environments or people (i.e., at the fair)

Animal Space and Water Requirements

Species	Space	Comfort Zone	Water Requirements	Normal Body Temperature °F
Cattle	40-50 Ft Confinement and 400-600Ft Exercise Area	40-65°F	10-20 Gallons/Day	101.5°F
Goat	15 Sq Ft per animal and Exercise Area	45-70°F	1.5-2 Gallons/ day	102°F
Chicken	2 Sq Ft	95°F first week, Lower 5°F each week to 70°F	1 Pint-1 Gallon/ for 10 Birds (Increase w/ growth)	107.4°F
Turkey	5-10 Sq Ft	100°F first week, Lower 5°F each week to 70°F	1 Pint- 2 Gallons a day	106°F
Rabbit	.75 Sq Ft per pound of Body Weight	68-70°F	1/4- 2 Ounces per pound	101.3-104°F
Sheep	15 Sq Ft and Exercise Area	45-70°F	1.5-2 Gallons per Day	101.5-103°F
Swine	12 Sq Ft	60-75° F 90-95° F for piglet under 2 weeks old	3-4 Gallons per Day	102°F

GPP #10

Utilize Tools for Continuous Improvement

The foundation of the Youth Quality Assurance program is continuous improvement. All new animal caretakers must be trained in their duties, whether caring for one or 100+ animals.

Conducting site assessments on a regular basis is an excellent way to benchmark how the animal care practices are implemented and measure the animals' well-being. There are three core areas that should be evaluated when measuring and benchmarking the well-being of your animals: (1) records; (2) facilities, and (3) animal observations. Using only one of these alone to evaluate well-being can be misleading.

